

## **Avatars in flux**

blurring the boundaries of a unified phenomenon of bounded contours

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## Avatars in flux – blurring the boundaries of a unified phenomenon of bounded contours

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### Abstract

There is an almost unquestioned consensus in the virtual worlds' research communities that an avatar is the representation of a user and player in front of the screen and that the relationship between the two predominantly is about identity and self-construal. Richard Bartle's (2004) influential work and his claim that "it is all about identity" has been widely adopted. In many studies this conception has been explored and substantial contributions have been made (Downs 2010, Filiciak 2003, Fox & Bailenson 2009, Jin & Park 2009, Wang & Chang 2004, and Yee 2006). In this paper, I will, however, question the consensus to suggest that we nuance and broaden our understanding of the relationships of avatars with their owners. The question that I will set out to answer is: *In what ways do actors make sense of their choice and design of avatars?*

The empirical basis for addressing this question is found in iterative video interviews with actors while they act in their chosen virtual worlds and with their avatars. The video interviews have been conducted in situ together with actors on the locations of their usual play and practice – be it at home or at their work place. The methodological approach of the in situ video interviews is summarized by the notion of "following the actors," even if it is also recognized that the optic of the researcher is different from that of the engaged actor, who is seen as the expert of his or her engagement and agency.

Over time, when located beside the actors while they act and engage, gradually, the conception of an avatar as the representation of the actor has become questionable. During the interviews, discussing with the actors their relationship with the chosen avatars, increasingly the transformative aspects of the relationship has influenced the theoretical understanding explicated by this paper, and it has blurred the boundaries of a seemingly unified phenomenon with bounded contours. Hence, a phenomenon in flux has emerged and become ever more visible during the in situ studies. The paper therefore suggests that we nuance our analysis and explicate the multiple and emergent constructions as well as the stabilizing interpretations of the relationships between actor and avatar. Semiotics (Nöth 2009, Peirce 1994) and actor-network theory (Latour 1998, 2005, Law 2004, Star 1995) are some of the theoretical references that will assist and enable such analysis. Moreover, this paper will discuss how the methodological approach inspired by visual ethnography

(Grimshaw 2001, Pink 2001, 2006) and the theoretical analysis of the phenomenon of avatars have mutually constructed and conceptualized the multiplicity of a transformative phenomenon.

Following the methodological reflections and the theoretical and empirical analysis, the paper concludes that the relationships of actors and avatars 1) continuously oscillate and change as they 2) translate and transform the actors and their agency when enacted and performed. It is suggested that the understanding of avatars as *interpretants* and *mediators* in companionate relations will help us interpret and understand avatars as transformative phenomena in flux with blurred boundaries and not only as a bounded representation of actors in relations of projection, identification, self-construal, and identity-making.

**Keywords:** avatars, companionate relations, mediators, flux, video interviews, actor-network theory, semiotics.

## Introduction

### Motivation

In 2002-2004, in a group of European researchers,<sup>1</sup> we set out to experience what it feels like to enter and engage with a virtual world like Active Worlds<sup>2</sup> with the aim to explore possible educational potentials and knowledge sharing. To explore this new virtual environment a 3D Agora-world was built to gain personal experience of what it feels like. In 12 experimental sessions online as well as offline and in mixed reality workshops this group carried out experiments with communication, co-creation of content, building, and collaboration.<sup>3</sup> In the context of the present analysis two episodes motivate further studies of the avatars of virtual worlds in particular the relationships between avatar and actor.

In 2002, the gallery of avatars in AW was predesigned and not customizable. One of these avatar figures was an Egyptian Pharaoh-looking and cartoon-like figure with resemblance to the hieroglyphs and pyramids. From day one, the research assistant of the group chose this figure, because she felt it was funny to engage with. She enjoyed many hours of engagement together with her avatar Tonga in preparing and running the sessions and in building the world. After a while, however, the gallery of avatars was changed and the Tonga figure was removed. The project manager's response was significant. The fun and engagement disappeared. Clearly, a strong attachment to and emotional engagement with the Tonga avatar had developed.

The project manager of the same group of researchers chose a standard good-looking female figure and named her Smiley. She used Smiley for building purposes and a fantasy mermaid avatar when travelling and exploring the many different worlds of Active Worlds. In one of the last sessions, a mixed set-up workshop was located in a common physical space while our group acted and interacted in the 3D Agora-world. Smiley was present in-world in the shape of the good-looking female figure. During this session, an emotionally significant situation occurred when she felt her avatar Smiley harassed by one of the male participants – it all took place in the 3D Agora-world nothing happened in physical space. This episode turned out to be loaded with strong emotional reactions which led to a breakdown of the experiments of this session.

Even if very different, these episodes both attest the strong emotional attachment between the avatar and the actor and they motivate my continuous research on this relationship with an outset in the worlds of EverQuest and Second Life.

### Research question

There is an almost unquestioned consensus in the virtual worlds' research communities that an avatar is the representation of the actor and player sitting in front of the screen and that the relationship between the two predominantly is about identity and self-construal. Richard Bartle's (2004) influential work and his claim that "it is all about identity" (p. 161) has been widely adopted. In many studies this conception

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<sup>1</sup> Members of the Agora SIG were affiliated with Learning Lab Denmark; Centre for Knowledge and Design in New Media, Communication Studies, Roskilde University; Centre for Studies in Advanced Learning Technology, Educational Research, Lancaster University; Centre for Higher Education Development, Coventry University; Teaching and Learning Service, Glasgow University; Dept. of Learning, Informatics, Management and Ethics, Karolinska Institutet; and, School of Education, Sheffield University.

<sup>2</sup> Active Worlds is a virtual world open to user-generated content creation. In this sense the world is comparable to Second Life.

<sup>3</sup> Heilesen & Jensen 2007.

has been explored and substantial contributions have been made (Downs 2010, Filiciak 2003, Fox & Bailenson 2009, Jin & Park 2009, Wang & Chang 2004, and Yee 2006). This paper, however, questions the consensus and conception to suggest that we nuance and broaden our understanding of the relationships of avatars with their owners. The question I set out to answer is: In what ways do actors make sense of their choice and design of avatars?

To answer this, I will first introduce the analytical optic with reference to actor-network theory and semiotics, then secondly, present the methodological approach, the method, and the production of data to thirdly, introduce and discuss some of the empirical cases from a recent study of ways of virtual world-making, among others: the guild Draconic Guardians from EverQuest and the Second Life business cases Wonder DK and Times to empirically ground the concluding answers to the overall research question of this paper.

## **Analytical optic**

Engaging with virtual worlds entails to enter a world of sign-relations and technology; two knowledge domains that are often seen as separate, almost like two sides of a dichotomy, with the softness of human meaning-making on one side and the hardness of technology on the other. In virtual worlds, however, the sign-relations and the technological aspects are pervasively intertwined which calls for an understanding of the relations between human meaning-making and nonhuman technology. In actor-network theory there is a long trajectory of research on the relationships between humans and nonhuman technologies, which are seen as active agents and actants of processes of meaning-making. The analysis of this paper therefore draws on this way of thinking. The emotional qualities of the relationships between actors and their avatars have been exemplified by the introduction and they are pivotal to the motivation for the study reported in this paper. To see meaning-making processes as mainly cognitive phenomena misses the point of the emotionality of the relationships. To encompass emotional qualities as part of the understanding of meaning-making, in the present analysis, the Peircean phenomenology is included with a reference to semiotic theory.<sup>4</sup>

## **Interpretive understanding of virtual worlds**

The understanding of virtual worlds that guides the analysis is interpretive. In the present analysis, technology is seen as an important non-human actor and actant of interpretation and agency whereby actors co-construct their in-world presence through the many choices they make and express. In chains of connections and relationships between humans and nonhumans, virtual world-making is seen as technology at one end of the trajectories with human agency at the other end. Yet in movements back and forth along these chains, cross-boundary translations are made and supported by intermediaries, which help us put 'in form' technologies and sign-relations, which can then be interpreted. If seen as non-human actants, technologies partake in a multiplicity of translative compositions as communicated by intermediaries and mediators of meaning-making.<sup>5</sup>

## **Actants of meaning-making**

One of the non-human actors and actants of interpretation is the avatar conceived as a non-linguistic visual metaphor and mediator, which translates the meaning it carries. Through many translations the avatar thus enables the actor to navigate the different modes of presence that are part of his or her daily

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<sup>4</sup> Dinesen, A. M. & F. Stjernfelt (Eds.) (1994).

<sup>5</sup> Latour 2005, Star 1995.

life and virtual world-making. If we analyse the micro-moments of world-making and the making of sense hereof, then the avatars are some of the influential mediators of the crossing of boundaries which mediate the connections of human and technology in different modes of presence. In this sense, the avatars may be seen as cross-boundary objects that enact the connections of actor-networks relative to different modes of presence.<sup>6</sup> Hence, the avatars have principal parts to play as the mediators of connections between technology and the participating actors' presence; between the actor and his or her engagement and agency, and in the relationships with other actors and avatars of the worlds.

Below, I will develop further the semiotic understanding of avatars to examine how semiotic theory of sign-relations can contribute to our understanding of the avatar if seen as a mediator of transformative relations.

### **What do avatars refer to?**

Broadly speaking, with reference to Nöth (2009), I will distinguish between an instrumental and a semiotic understanding of sign processes to briefly discuss these two conceptions. In doing so, different understandings are summarised and labelled instrumental, even if they do also diverge. If sign processes are seen as tools and instrument of a practical utility, then the avatar can be seen as the instruments by which an actor seeks to cognitively perform and persuade, or to socialize. If we see signs as such practical tools or instruments of communication, then reference can be made to the art of rhetoric, and when seen as tools and instruments of behaviour and of the interchange between external stimuli and internal cognitive processing, then as psychological tools. To pursue this way of thinking, I will point to a closely-related idea by which signs are best studied and understood by their use,<sup>7</sup> that is, as tools and instruments of usage, e.g. the use of language.<sup>8</sup> In rationalist conceptions signs are studied as representations<sup>9</sup> and in structuralist theory as elements of a system.<sup>10</sup> In representative theories of signs, the relations of sign and usage is one of "(...) *standing for* whereas instrumental theory considers this relationship as one of *serving the purpose of*."<sup>11</sup> The representative and instrumental theories of signs seem prevalent in current understandings of avatars, if the avatar is seen as an on-screen representation of the real person.

Recently, Nöth (2009) has questioned and opposed the instrumental understanding of signs, regardless of whether they are the representation or the tool-oriented conception, and he does so with reference to the Peircean theory of semiosis.<sup>12</sup> He summarises Peirce's arguments this way:

Whereas the sign involves the triadic interaction of an object, a sign, and its interpretant, instruments merely involve the dyadic interaction between the instrument extending the agency of its user and the practical effects achieved by means of it.<sup>13</sup>

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<sup>6</sup> Star 1995.

<sup>7</sup> Wittgenstein 2009/1953.

<sup>8</sup> E.g. Searle 1983.

<sup>9</sup> Chandler 2007.

<sup>10</sup> Holdcroft 1991.

<sup>11</sup> Nöth 2009, p. 14.

<sup>12</sup> Peirce sees a sign as something that stands for something to someone. Thus, the sign process is best understood as triadic as it involves relationships between the three things: the sign itself (representamen), the thing that the sign represents (its object), and the thing that interprets the sign as representing that thing – its interpretant. These relationships are involved in the processes that make signs and which signs make.

<sup>13</sup> Nöth 2009, p. 18

According to this, if we interpret the avatar through the lenses of a Peircean understanding then we should look for triadic processes of semiosis rather than instrumental relations of representation. Engaging with virtual world-making accompanied by avatars means to engage with what Pierce sees as the thirdness of triadic sign relations and not only the secondness of dyadic reference. This distinction is important because different causalities are at play. According to Peirce, in dyadic relations (secondnesses) what we see is efficient causality, which means that there is:

(...) a compulsion determined by the particular condition of things [...] acting to make that situation begin to change in a perfectly determinate way.<sup>14</sup>

On the other hand, we find final causality, which “(...) involves triadic interaction.” It is the long-term causality of purposes, intentions, ideas, signs and general laws, all of which belong to the Peircean category of thirdness.<sup>15</sup>

Secondness leaves no alternatives for creative change, whereas:

Final causality does not determine in what particular way [the general result] is to be brought about, but only that the result shall have a certain general character (CP 1.213, 1902). Signs act by final semiotic causation insofar as their semiotic potential can reach its effect by different means.<sup>16</sup>

If viewed with the optic of semiosis, avatars are understood as sign relations, and the Peircean conception means that an avatar is something that stands for something *for someone*. Moreover, we have seen that the triadic sign relations (thirdnesses) may be interpreted differently insofar as their semiotic potential can be realised by different means when seen with reference to the interrelations of the categories,<sup>17</sup> which Peirce in his phenomenology designates: firstness (monadic), secondness (dyadic) and thirdness (triadic).

Taking a next step, I will therefore bring into play the understanding that signs make sense and meaning by triadic relations and I will do so to clarify this semiotic understanding of avatars.

In a Peircean phenomenology firstness is a quality,<sup>18</sup> a monad that exists without dependencies and any further relations. A sense of excitement is a firstness, a feeling, and described in Peircean terminology as a quality. Effort and resistance are the dynamics of making such qualities instances of realisation, for example by engaging with virtual world-making. Hereby, the secondnesses of the firstness are generated. Thus, the dynamics of dyadic relations realises the firstness in resistance and effort, which means that in the realisations we become aware of the firstness by acting it out in particular instances of actions and events – be it in a bodily mind or physical space. We have now seen the qualities of firstnesses and the dyadic relation of instances of realisation; the next step is to understand the dynamics that generate the relation of this dyadic relationship, that is, the triadic sign relations of thirdness and final causality.

To understand the thirdnesses of triadic relations, the question is what avatars refer to. If avatars are viewed as sign relations of semiosis, as presented here, then the reference is not to the subject, the person in front of the screen, but to the potentialities and qualities of online presence. The object for this relationship is not the person and the referent is not the avatar. Rather, the potentiality of virtual world-

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<sup>14</sup> Peirce 1903, cited in Nöth 2009, p. 19.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

<sup>17</sup> See Peirce, in Dinesen & Stjernfelt 1994, pp. 29-32.

<sup>18</sup> Ibid.

making, and with that the qualities associated with it, is the object for this relationship and its referent is the realisation hereof by instances of online presence. The possible realisation among many other possible realisations generates unique triadic sign-relations, hence, they are the creators of history, which gives meaning to the dyadic relations between object and referent. The avatar can be viewed as the particularity of realisation, that is, as the interpretant. As an actant in the processes of semiosis, the avatar is the interpretant that realises potentialities and qualities in certain forms in situations of engaging, and with a unique history. Let me concretise these abstract reflections.

If we look at two maps from the virtual world of Second Life (Figure 1), they may help us exemplify dyadic relations between actor and online presence when seen from the optic of semiosis.

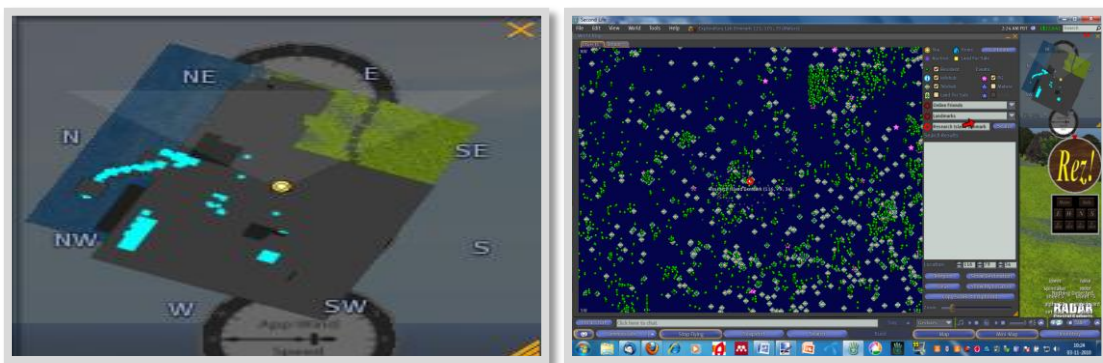


Figure 1. The yellow dot (map to the left) indicates a vantage point relative to corners of the world (NW, W, etc.) and the green dots (map to the right) designate the presence of actors in a small sample of islands. With a Peircean view they both realise online presence by indexical sign relations and effective causality.

In a Peircean sense, the dyadic sign relations between actors and online presence are forms of efficient causality or instrumental relationships in the sense previously mentioned. The green dots of the map refer to indexical relations in and with the computer's active mechanical system of digital signs. They are instances of the realisation (secondness) of the potentialities of virtual world-making (firstness). If we assume that the green dot is a realisation of a quality such as 'to feel the joy and expectation of realising a business idea' then the green dot is a referent to online presence which refers to the fact that this potentiality is realised in instances of digitally and mechanically active online presence. The fact that this relation is indexical means that the qualities are realised by efficient causality even if the green dot is just one possible sign among many other possible signs. Thus, the referent of 'online presence' can be interpreted differently, although it is realised by causality. The interpretant of this dyadic relationship could be an avatar in the shape of a culturally familiar figure for instance a businessman in a suit with a tie, or an avatar shaped like a strange and balloon-like walking advertisement pillar. Regardless of the particularity and uniquenesses of the interpretant, the referent is a causal realisation of potentialities. If the realisation is to start a business in a world like Second Life then it causes the dyadic sign relations of online presence albeit with the multiplicity of possible and potential realisations of triadic relationships such as a businessman or a walking advertisement pillar. It is in these unique and particular realisations that the dynamics of actors sense-making and the meaning-making of avatars can be found.

This interpretation of the phenomenon of avatars differs from many of the prevailing conceptions that emphasize the identification, projection, self-construal, and identity-making of the relations between actor and avatar, but these understandings are by no means precluded. It changes the accentuation, however, to



focus on the relations between potentiality, quality, and emotion, and their realisation in and with a unique history. The semiotic analysis primarily focuses on the relationship between the engagement and intention to create, e.g. a virtual company, and the unique realisation thereof by, among others, a businessman avatar. The fact that the unique realisation is also an interpretation which draws on metaphors and images of a general cultural content is obvious, as is the fact that intentions are related to many aspects of a psychological nature. The point is, however, that the focus of analysis is changed, firstly, to establish an articulated multiplicity of relations and connections between the person in front of the screen and the avatars as a phenomenon. They are not seen merely as the instrumental and representational consequence of the person in front of the screen, and the change of optic accentuates an interpretation of the avatar as a personal mediator of the relationship between intention, commitment, emotions, engagement and the possible and unique realisations hereof in a particular form of avatar-making.

Many choices are made in the dynamics of creating a personal mediator – the triadic sign relations of interpretants – not least how the other actors of the world interpret the mediator. Therefore, we find iconographic, visual and cultural metaphors whether derived from everyday life or from fiction. These iconographic sign relations of culturally constructed and non-linguistic metaphors refer to potentialities, qualities, and intentions as well as to the particular cultures of virtual world-making. In the dynamics of these triadic sign relations, actors generate interpretations of online presence in a virtual world with certain aims and intentions as well as with reference to the other actors of the world and their interpretations.

In the present study, the interpretant of the semiosis of avatars is therefore seen as the personal mediator of the realisation of potentialities and qualities of online presence, visions, and intentions in the particular cultures of virtual world-making.<sup>19</sup> This interpretation of the avatars is referred to by the notion of companions. It accentuates the *relational* and *semiotic potentials* of avatars. This notion emphasises the relational aspects of the avatar, in the sense of *with* rather than *as* relationships; an interpretation according to which avatars are seen as companionate<sup>20</sup> personal mediators.

Based on this analytical optic, three cases from recent empirical analyses of ways of virtual world-making<sup>21</sup> are now introduced and discussed with regard to the relationships between actors and avatars.

## Empirical studies

### Methodology and method

The methodological approach of the empirical studies conducted from 2006-2009<sup>22</sup> can be summarized by the term “following the actors” derived from actor-network theory. To comply with this methodological approach extensive participatory observations have been conducted along with in situ

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<sup>19</sup> Lane 2009.

<sup>20</sup> In her latest studies, Sherry Turkle’s research is focused on the relational artefacts of robots. She aims to understand the relationships between humans and machines in transitions from the culture of simulation that characterises the intensive participation in game spaces to the companionship of a robot/human relationship moving from the psychology of projection to the psychology of engagement, see Turkle 2006, 2011.

<sup>21</sup> Jensen 2011.

<sup>22</sup> “Sense-making strategies and user-driven innovation in virtual worlds” is a research project supported by the Danish Strategic Research Council. The project period is 2008-2012.

qualitative and open-ended video interviews interviews<sup>23</sup> inspired by visual ethnography (Grimshaw 2001, Pink 2001, 2006). In the present paper however, reference is only made to the video interviews and to one out of five analytical foci of the empirical studies conducted, namely, the question concerned with actors' choice of avatars. The five foci of the complete empirical analysis are: co-constructions of the virtual world, choice of avatars, the building of relationships, expressions of self, the navigation of daily life and virtual world-making.

The video interview method has evolved over time and through the practices of studying net-based communication.<sup>24</sup> In order to consider the relevance of the method, two questions about the production of data are asked: do the in-depth studies have analytical foci that entail engaging with artefacts, media, technologies, spatial organisation and reorganisation of spaces? Does communication involve moments of time and space where the body's memory, knowledge and expressions are important? In the studies of situated agency in and with artefacts, media and technologies, video interviews is a method that helps observe, engage with, learn, and reflect on relations with technologies and spatial organisation, bodily knowledge,<sup>25</sup> experience, and expression. These are phenomena difficult to recall and express in an interview's retrospective memory and language. In virtual world-making, actors do often experience difficulties in recalling the activities when engaging with their computers, interfaces, worlds, and avatars. The method of simultaneously producing video recordings whilst doing situated in-depth interviews of in-world agency and communication as well as the human computer interaction and experience by the interface and with co-located actors is a possible answer to some of these problems. Hence, this is the method chosen for the empirical studies.

## **Producing the data**

### **In-depth case studies**

The situated, in-depth video interviews provide an insight into very different instances and scenes in the life and style of the actors' daily life and in-world presence. In the EverQuest study there are actors receiving social security, a former student now on disability pension benefits, a trainee teacher, a high school student, a research assistant, and a private enterprise innovation consultant.<sup>26</sup> There is a single player with a single figure and a married couple, who play together and separately with many different avatars. This couple has two children. The youngest player is in upper secondary school. He is a generalist with extensive experience and a systematic knowledge of many different worlds and games. The others are dedicated EverQuest players. In the Second Life part of the study, one of the actors is a professional programmer at the time of the video interviews making a living as a full-time Second Life entrepreneur. Another Second Life project is represented by a business woman in the start-up phase of a Second Life branch of her real life company. During the study and video interviews her company closed down the Second Life branch, a decision which led her to start up an entirely virtual Second Life business. In the public Second Life project, Literary, one of the initiators and driving forces is an

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<sup>23</sup> Jensen 2011

<sup>24</sup> Sources of inspiration for the method of video interviews come from visual anthropology and human-computer interaction design, e.g. Banks 2001, Grimshaw 2001, 2005, Jordan & Henderson 1994, Pink 2001, 2006, 2007, Suchman 1987, Suchman & Trigg 1991, and from reflections on how to see, e.g. Collier 2001, Goodwin 1993, 1994, Goodwin & Goodwin 1998. To follow up on the idea of a 'gaze theory' as it has been put forward by Williamson 1995, I am currently working on this as part of methodological reflections about the study of virtual world-making.

<sup>25</sup> Polanyi 1966.

<sup>26</sup> The interviews with the research assistant and the innovation consultant are not video recorded.

academic with a background in Humanities together with a professional from the branch of public service. Together, they run a public project that aims to explore new opportunities for public institutions in Second Life.

To serve the analysis of the present paper, three among those cases have been chosen: one case about the actor Sia and her engagement with the avatars Gelinu the shaman, Perplexed the gnome, and the slave-bot Gelinu the Trader; two Second Life cases about the actor Thomas with his businessman and real estate agent DC Aspen and his mad scientist designer, and the businesswoman Helle with her funny egg-and balloon-like advertisement pillar avatar outfit and the gorgeous-looking, personalised female outfit.

## **Iterative video interviews**

The video interviews are made at intervals and with the same actors participating, because recurring interviews have advantages for the production of data aimed at a qualitative analysis. The recurring interviews provide the opportunity to clarify some of the discussions, reflections, and agencies of the first recordings; reflections and actions that may be difficult to understand or comments made while fighting, trading, chatting, or designing in the virtual world-making. The iterative method enables clarification and further discussion of unclear issues and it allows actors to comment on their engagement in more detail than in a first interview. Furthermore, in the iterative procedures, the recordings take advantage of the fact that the set up and scene is well known thus providing optimal conditions for the focus of the interviews. An overview of the video interviews is summarised in the appendix table 1.

## **Visual deconstruction**

To facilitate the analysis, the videos are processed to generate visual descriptions. Single annotations and annotation types are visually marked and shown in a web browser with snapshots that start and end each annotation with actual time codes. Snapshots are single video frames retrieved by pre-programmed settings of the analytical software,<sup>27</sup> or they are chosen ad hoc. Thus, the videos are transcribed with images as they are deconstructed in a process of reversed story-boarding. In this process snapshot-based descriptions of the videos are generated. In a first view, snapshots are generated each 500 milliseconds to translate the video recordings into snapshots. Secondly, the same procedure is repeated only now snapshots are manually selected. These visual descriptions and decompositions produce an extensive amount of visual data that help compose and select reversed storyboards of analytical significance. The next steps of the analysis aim to narrow down the scope and scale of the views of the data in a process that translate the many scenes and snapshots into *keyframes* of the storyboards. A keyframe is a single video frame that visualises a scene of analytical significance. Thus, the snapshots of the reversed storyboarding translate data into keyframes of analytical significance.

## **Avatars in flux**

Over time, when located beside the actors while they act and engage with their virtual world and avatar-making, gradually, the conception of an avatar as the representation of an actor by relationships of projection, self-construal, and identity-making has become too constraining as the brief case analyses of the following sections will show.

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<sup>27</sup> The analytical system Advene – Annotation of digital video and exchange on the net.

## Engaging with leadership

*The story about how the avatar Gelinu the shaman helps Sia practice leadership skills.*

The shaman Gelinu is Sia's preferred avatar, her main in the game of EverQuest (Figure 2). Gelinu is a really cool avatar and she is almost a goddess to Sia.

Gelinu, she is my goddess, she is cool (...) shamans, they are really cool (...) shamans can really do many things. -Sia

The shaman can heal. Not as good as some of the other classes, such as a cleric, a priest, or druid, but well enough to make it an important part of Gelinu's repertoire of actions. The shaman is a difficult class to play. One must always be aware of what is happening, what the other players in the guild are doing and what they need. Therefore, the shaman can do many things. Gelinu has many talents and skills of her repertoire. She can slow-down the mobs, throw curses, do damage and eliminate resistance, throw disease-based spells and saves in various forms. And she can buff, which means that she can cast beneficial spells on other avatars to strengthen them. These are just some of the many things she has to see to. Therefore, Gelinu is busy improving the skills of the other members of her guild, Draconic Guardians. She can increase their strength and speed, resilience, and she can prolong their lives. Also, a shaman, who reaches level 34, gets a pet as a companion. It is a wolf, who is summoned from the spirit world. It can also make her stronger and better to attack.

The avatar, Gelinu, helps Sia build up acceptance and authority to act as the leader of Draconic Guardians. Although demanding, Gelinu designates Sia's leadership, and with that the acquisition of abilities and skills. Hence, Gelinu imposes change on Sia. Her avatar makes Sia aware of new personal abilities and skills of leadership and of the fact that she has become a leader. It takes a lot of informal learning whereby the avatar acts as a transformative agent of Sia's monitoring, timing, and controlling skills and of distributing equally among the members of the guild pillage from raids and valuables from trading.

Sia engages with EverQuest accompanied by her companion, the avatar Gelinu. Gelinu is a shaman who leads the guild Draconian Guardians and is thought of as the 'cool' shaman. This engagement makes sense to Sia because her online presence refers to the qualities and feelings of pride, joy and almost love (firstness); qualities that are realised by instances of online presence together with the guild Draconic Guardians (secondness). In company with the cool shaman, the interpretant, Sia realises her presence in a certain way: as a guild leader who manages the many demands on her time and resources, which the game entails (thirdness). This is the narrative told by Sia's with reference to the co-construction of her world and in relation to other actors of the world. Only because she can manage the many demands and reach high goals and achievements can she see herself as the leader of a guild of high standards; an indispensable leader.



Figure 2. Gelinu the shaman (keyframe 1) is Sia's main in the game of EverQuest. Accompanied by Gelinu, Sia is fighting dangerous mobs with her pet wolf Kober and playing the part of guild leader of the Draconic Guardians (keyframe 2). In situations where Sia is too tired to meet the many demands of playing the shaman and guild leader, the little gnome Perplexed is her preferred avatar (keyframe 3). Accompanied by Perplexed, Sia enjoys socializing on the Plane of Knowledge (keyframe 4). Gelinu the shaman is a high-level avatar highly ranked also in crafting and trading skills. To exchange and trade her valuables she spends time with her Gelinu the Trader (keyframe 5) and on the EverQuest market (keyframe 6).

The Draconic Guardian's guild also engages in other activities than going on missions and raids. When the demands of playing the shaman get too overwhelming and stressful, Sia enjoys playing and socializing with her gnome avatar Perplexed. For different moods, emotions, and mental resources Sia has an avatar gallery beside Gelinu. Enjoying the more relaxed engagement with her avatar Perplexed, when she is tired, she regains strength to act as a shaman and guild leader. Her slave-bot Gelinu the Trader is also an important actant which allows her to always be present on the EverQuest market to sell the goods that result from her crafts. In this way, she holds a very high ranking of crafting and trading skills. Depending on situation, mood, emotion, and mental resources Sia chooses between several avatars as the interpretants of her online presence.

## Engaging with new professions

*The story about how the avatar DC Aspen helps Thomas engage with new professions.*

DC Aspen is an avatar businessman in Second Life (Figure 3). Early in 2007, his owner Thomas starts an entrepreneurial business together with a team. Together they finance the establishment of the company Wonder DK. From the outset, the idea is to buy an island in order to design an urban environment with many similarities to Danish provincial towns. In spring 2007, the Second Life island is organised and well designed with a cosy and welcoming atmosphere, city guides to chat with, an environment recognisable to any Dane yet attractive also to international visitors.

DC Aspen is a default avatar originally neglected by Thomas, who takes no interest in its design, only in the design of Wonder DK. Early on, his business is well known among others due to a successful launch. Residents of Second Life know that DC Aspen is always present in-world; they ask for his advice and help. He gains a reputation and high in-world status. However, due to this, he has to change the relationship with his avatar, DC Aspen. He has to take into consideration the culture and history of the Danish Second Life community of Wonder DK and of Second Life culture. The owner of a well-reputed and professional business like Wonder DK has to take seriously his avatar and its looks. Even if not interested, Thomas is forced to adhere to the expectations and interpretations of how to look and be when running a professional Second Life business.

My avatar looks like this [pointing] at the moment. In the beginning, I used a default avatar, because, appearance, it has never really interested me—neither here nor in real life. It was only when I started getting some complaints from people who said that I looked stupid that I realized I had better do something. -Thomas

He is forced to remake DC Aspen to refer to the Wonder DK business in a more convincing way. Thomas, with DC Aspen, has gained a reputation of being knowledgeable about in-world design and scripting; thus, his presence is part of the social history and culture of building Danish Second Life places, and his avatar is part of this history. The complaints about his avatar do not address his looks in the sense that he has to adapt to a stereotypical metaphor of a businessman; rather, it addresses the importance of making DC Aspen look like an oldbie and not a newbie. Judged by a Second Life scale of history, DC Aspen has quickly become an oldbie due to his knowledge, experience, and presence. The complaints address the fact that his avatar looks like a newbie, which means that it does not convincingly refer to the knowledgeable professionalism of his in-world business and design. Thomas has to accept that to focus on his avatar is as important as the excellent design of his metaphoric island and business. Very quickly, he changes both the look of DC Aspen—to that of a professional businessman—and his relationship with DC Aspen, experimenting with different outfits depending on the situation and purpose of his Wonder DK activities.

DC Aspen imposes change on Thomas. His avatar makes him aware that he is now about to become a businessman and real estate agent in Second Life. This is initiated by his avatar, which plays an active part in translating Thomas's in-world presence to construct himself as a businessman. This is an important step in his translation from a previous job as an IT programmer to the new profession of a real estate agent.

To Thomas, it makes sense to engage with Second Life accompanied by DC Aspen, the 'settler', because the online presence refers to qualities and a feeling of excitement and a sense of pioneering (firstness); qualities that are realised by instances of online presence with the Second Life business Wonder DK (secondness). In company with the businessman avatar DC Aspen, the interpretant, his presence is realised in a certain way out of many possible: as a businessman struggling to make a living of his world-making (thirdness). This narrative refers to Thomas' co-construction of his virtual world and also to his relationships with other actors of the world. In his view, only because he is trustworthy, serious, meticulous and with a carefully worked-out design can he aspire to run a business. In contrast to many other actors, he sees himself as carefully and persistently designing and learning to gain knowledge.

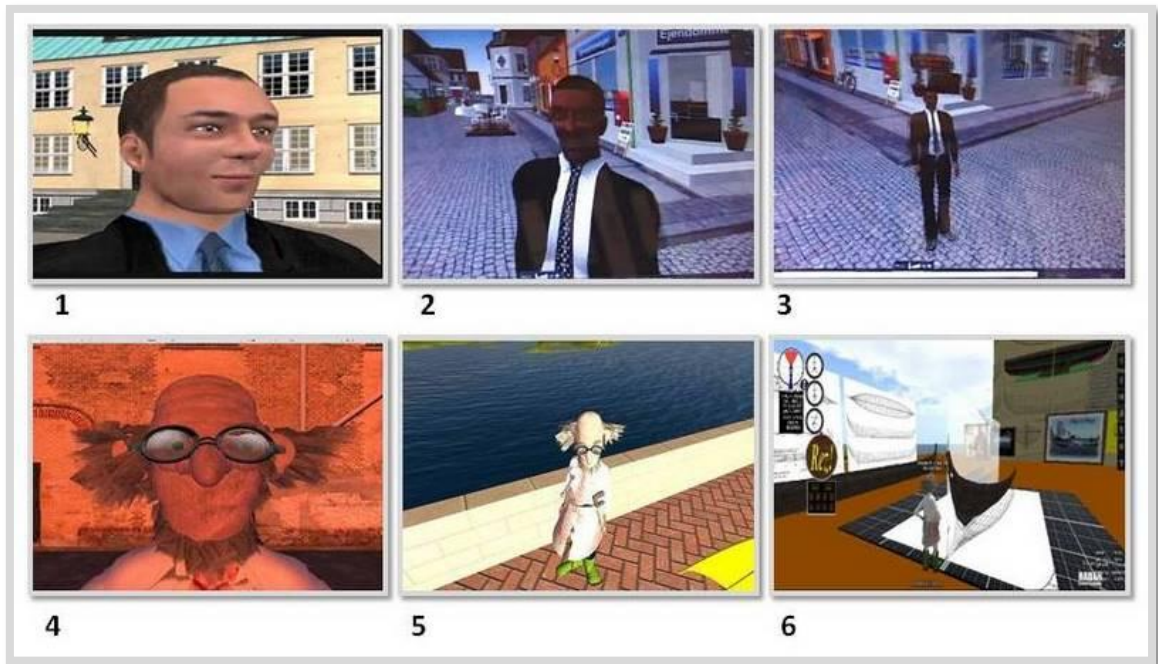


Figure 4. DC Aspen is Thomas' avatar in the Second Life Wonder DK project (keyframe 1). Accompanied by DC Aspen, Thomas is running an in-world real estate business letting out small shops on an island, which he has thoroughly designed to look like a cosy Danish provincial town (keyframe 2 and 3). In building and designing the Wonder DK business, Thomas gains insight, skill, and knowledge in demand. Gradually, his business focus is changed as design increasingly occupies his time. In situations of engaging with design, over time, Thomas is accompanied by his mad scientist avatar (keyframe 4 and 5). Taking on difficult design tasks, Thomas with his mad scientist, among others, is designing an archaeologically exact virtual reconstruction of the large Nordic Viking ship Havhingsten.

As Thomas' virtual business evolves, gradually, the activity of the real estate agency becomes less profitable. The extensive knowledge gained about design turns out to be a competence in demand. To accompany Thomas, when he is designing, the mad scientist is a frequent and preferred avatar quite different from the business-like real estate agent. Unlike his business-like avatar, Thomas finds the mad scientist a funny avatar hence he emotionally engages with this figure. He is accompanied by this avatar in the major tasks of designing an accurate Second Life version of one of the famous Nordic Viking ships; a version which should satisfy the requests of archaeologists and Metrotopia, an island designed for experimental research purposes.

## Engaging with international networking

*The story of how the avatar Helle the networker helps Helle<sup>28</sup> engage with international knowledge networking.*

The look of Helle's eponymous avatar continuously changes (Figure 4). On the one hand, the avatar is a company mascot, a fantasy figure that resembles a sweet and funny ball or balloon and, on the other hand, she is a personalised and good-looking woman dressed up for ball-room dancing. She is in Second Life on behalf of the company she works in to experiment with possible new opportunities and to start an in-

<sup>28</sup> Helle is the name of the avatar and the owner.

world branch of the company. Her business avatar therefore needs to create trust; it should be approachable as well as unusual so it is easily recognisable. As it is designed for her business experiments it is crucial to attract attention.

She has a lot of clothes together with skin, hair, shoes and evening dresses; her virtual wardrobes are full to bursting. There has been a great deal of power shopping going on but there is order in the cupboards of Helle's inventory.

I shop a lot. It is important when you have to find something, right? I have organised it, so *I can now quickly go in and find whatever I need.* – Helle

During the video interviews, Helle alternates between the many outfits of her inventory two of which are the preferred: the funny business avatar and the gorgeous looking woman wearing an exquisite ball-room dress. Sometimes the avatar wears the mascot's costume and at other times the ball-room look. However, she still has only one avatar although it would be possible to have one for business use and one that is private. The reason why Helle refrains from more than one active avatar has to do with her sense of integrity. She would feel a loss of integrity; almost like double standards.

There are also some fellow avatars who ask: Why do you not have two avatars in here; one entirely private, and another for business? But, it would be the same as having a double standard. It would be difficult to separate the two. It is I, Helle, who is in this avatar, who has this network in Second Life. If I came with a different name, then I would not be able to use my network in the same way. And I would not own the same things, for you cannot divide your things and inventory between two avatars. It would be a real mess. – Helle

With her avatar, she struggles to realise the absolute most of the opportunities of her engagement with Second Life. She seeks to counter any limitation as it makes sense to her to juggle and to overcome any problem she encounters. Solving problems satisfy her pronounced curiosity. To facilitate the problem-solving strategy she has to rely on her ability to generate knowledge-sharing networks and in this her avatar design acts as an enabler. The design proves her skilfulness. To enact the building of international knowledge-sharing networks, her business strategy is to create a design which helps announce her business services as she moves around to the many different places and islands of Second Life to attract attention.

In processing the video interviews, the recordings show how Helle continuously changes her avatar's appearance and outfits in accordance with the demands of different situations of engaging. A recurring motif is the need to attract attention, be it through professional design or through funny appearances; these are important mediations, as it makes sense to Helle to be present in the world of Second Life for professional and serious reasons and not just to socialise and chat.

Helle's many avatar outfits helps her make contacts and build knowledge networks. Her avatar translates the in-world presence to enable the construction of an internationally known knowledge networker. In this way, the avatar, be it the funny or the gorgeous, makes Helle aware of her network-building ability and competence.





Figure 3. Helle is the name of Helle's avatar. It is a matter of integrity to Helle to use her real name in-world, moreover, she thinks it increases her trustworthiness. Many and very different outfits take up room in her inventory wardrobe. Whatever outfit, however, Helle is always working, when she is in-world, because her Second life business Times is the original occasion for engaging with the virtual world. In the shape of her egg-and-balloon-like avatar, she realises her business ideas by designing a funny, cute-looking, friendly, and forthcoming avatar outfit wearing a poster that announces her business services (keyframe 1). Accompanied by her funny avatar, she pursues a "nomadic" business strategy of always moving around (keyframe 2), travelling to the many different places and islands of Second Life, attracting attention by her looks thus to make contacts chatting with other avatars and their owners. Hence, she builds an extensive international knowledge network and profound insight into Second Life issues and design. Always seeking places and events with many avatars present, the many different outfits allow her to almost metamorphose-like change (keyframe 3 and 4) in accordance with different situations (keyframes 5 and 6) to make contacts, announce her services, and to always extend her network.

Helle is accompanied by her avatar Helle, the 'networker' and it makes sense to her to engage with Second Life because the online presence refers to qualities and a sense of curiosity, eagerness and fun (firstnesses); qualities that she is realising by instances of online presence with the Times project (secondness). In company with her networking avatar Helle, the interpretant, she realises her presence in a certain way out of many possible: as a businesswoman who works to make a reality of personal and professional networks of knowledge sharing (thirdness). This narrative refers to Helle's co-construction of her virtual world and her relationships with other actors of the world. Helle willingly shares her knowledge with other in-world actors and believes in sharing to gain knowledge as opposed to keeping her knowledge to herself.

### Situated data production

In the research discussions about how to study actors engagement with virtual worlds the question about the reference between actors and avatar, or other modes of reference to online presence is dealt with (Boellstorf 2008, Orgad, in Hine 2005). Often this discussion concerns issues of identity-making in

dealing with the question whether we should study online presence on its own right such as suggested by Boellstorf in his extensive analysis of Second Life, or by comparison between online and offline (p. ). The underlying assumptions of the latter often is that we should study if actual actors present themselves differently when in-world and online compared to their “real” self. In this paper, the approach and answer to this discussion is to point out that it depends on the situation and the research questions and design. In given situations each of the mentioned approaches make sense and in the present analysis the situated data production has allowed me to take part in engagement while it unfolds hence to also sense the engagement and to follow the situated transformations of avatars and of the relations between actors and their avatars. This methodological approach and method has almost visually shown *processes* of transformation, emotions and xx not with the aim to compare see if the online presence correctly represents the actor, but to follow the translative connections of human actors and their nonhuman avatar actants. Moreover, this approach has also allowed me to see many different modes whereby avatars also influence the actors in processes of continuous change and transformation. While processing the situated and visual data, gradually, my attention was also drawn to the emotional engagement of the actors as visualised by their facial expressions and bodily gestures<sup>29</sup>.

## Conclusion

In this analysis, avatars are referred to as companions. Other questions than those of identity-making and self-construal are therefore accentuated. The avatars are not primarily seen as a virtual representation of a “real” actor with his or her identity(ies), sitting ‘behind’ the avatar, so to speak. The theoretical understanding as expressed by the concept of companions refers to semiotic theory and actor-network theory. From the viewpoint of semiotics, the non-human actants of avatars are understood as sign-relations and interpretants of a multiplicity of interpretative processes, connections and translations in actor-networks of humans and nonhumans.

During the video interviews, as a researcher sitting beside the actors discussing their relationship with the chosen avatars of agency, the boundaries of a seemingly unified phenomenon and representation with bounded contours has become blurred. Hence, a phenomenon in flux has emerged and become ever more visible during the in situ studies as visualised by three chosen cases, one from an EverQuest guild Draconian Guardians and the Wonder DK and Times business cases from Second Life (Figure 2, 3 and 4). In series of multiple and emergent meaning-makings of situational engagement, the avatars of those cases have appeared to be temporarily stabilising interpretations and personal mediators of companionate relationships. From a semiotic point of view, the procreation of interpretants is as important as the identity-making as referenced by avatars. Thomas is not free to create whatever identity he wants when the procreation of interpretants is accentuated by the analysis—he has to refer to the interpretations of professionalism by Second Life standards of communities, culture, and history. Hence, particular situations, emotions, and intentions make likely certain interpretants in the shape of avatars. The actors of this analysis are aware of this as they continuously interpret their online presence by reference to the cultures they partake in. In this, they develop different ways of avatar-making. In Helle’s business case the avatar continuously change to attract attention to her knowledge network; in Thomas’ case a new business-like avatar is bought because the original and default avatar of his did not make reference to his professionalism; and in Sia’s case mood, mental and physical resources play important roles in her choice of avatar which refers to different modes of online presence.

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<sup>29</sup> Due to the anonymity of the participating actors, in this paper, this part of the analysis is not visually documented by selected keyframes.

## Appendix

Table 1. Overview of video interviews

Video interviews	
<b>Martin 1</b>	Different world, narrating, overview
<b>Martin 2</b>	Showing RuneScape
<b>Martin 3</b>	Narrating, showing Star Wars Galaxies
<b>Martin 4</b>	Showing, discussing, RuneScape
<b>Jan 1</b>	Flying carpet, choosing sides, mapping
<b>Jan 2</b>	Travelling, chatting, avatar gnome Gnossiz, status
<b>Jan 3</b>	Questing, upgrading, chatting, David-fighting-Goliath
<b>Jan 4</b>	Lonely and desolate places, manipulating the system, fighting the designers
<b>Jan 5</b>	Dangerous places, fighting mobs, upgrading
<b>Draconic Guardians 1</b>	Introducing, avatars Krongh, Gelinu
<b>Draconic Guardians 2</b>	Assembling, avatar Perplexed, mobs
<b>Draconic Guardians 3</b>	Avatar Gelinu, assembling, Plane of Knowledge, bags and valuables
<b>Draconic Guardians 4</b>	Janus. Krongh, exposing, fighting mobs
<b>Draconic Guardians 5</b>	Mapping, mission together, guild, fighting mobs.
<b>Draconic Guardians 6</b>	Preparing a mission, banker, baking, pottery
<b>Draconic Guardians 7</b>	Sia. Food supply, preparing, mission, banker.
<b>Draconic Guardians 8</b>	Producing, baking, brewing, mission
<b>Draconic Guardians 9</b>	Janus. Producing, guild hall, poison
<b>Draconic Guardians 10</b>	Sia. Trading, trader, guild hall, bazaar
<b>Draconic Guardians 11</b>	Ready, mission, assembling, Plane of Knowledge
<b>Wonder DK 1</b>	Avatar DC Aspen, businessman, showing design, visiting places, messy, pointless and ugly
<b>Wonder DK 2</b>	Office, orderly and cosy design, provincial Danish town, remediating TV-series, shops for rent: Shopping Sonja, B & O Bøger, Marco Polo
<b>Wonder DK 3</b>	Business competition, search engine PR, city guides, staging, town square
<b>Wonder DK 4</b>	Facilitating, Hit House dancing, Schackenborg Castel ball-room, sandbox design, town square, shopping, blogging.
<b>Wonder DK 5</b>	Design of the Viking ship Havhingsten, clinker-built hull, technical drawings
<b>Wonder DK 6</b>	Exact textures, archaeological accuracy, megaprims, rig, square sail
<b>Times 1</b>	Funny, conspicuous, advertisement pillar, taxation, travelling, distributing
<b>Times 2</b>	Metamorphosis, merging personal and professional, ball-room and dancing
<b>Times 3</b>	Second Life-ish design, networking, chatting, having fun travelling: sailing, flying a hot air balloon
<b>Literary 1</b>	Janne: Avatar Alice. Shape. Freebies. Face expression, Chatting. Shoes. Meditation bubbles
<b>Literary 2</b>	Mads: Co-designing. SL limitations. IT-security. Avatar Rob. Necklace. Meditation bubbles
<b>Literary 3</b>	Weekly meetings. Professionals. Unknown visitors. Hand away animations, media, scripts. Challenging

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